

during the first 10%, by weight, based on dry polymer weight, of the conversion of monomers to said emulsion polymer; 0.001 to 0.05 moles of chain transfer agent/kg monomer; and a neutralizer, wherein said neutralizer is used in the amount of from 5% to 75%, on an equivalents basis, based on said monoethylenically unsaturated acid monomer, and wherein less than half of said neutralizer is present during the first 25%, by weight, based on dry polymer weight, of the conversion of monomers to said emulsion polymer.

2. (original) An aqueous coating composition comprising a pigment and an aqueous acrylic emulsion polymer comprising, as copolymerized units, from 50 to 99.75% by weight, based on dry polymer weight, monoethylenically unsaturated nonionic (meth)acrylic monomer and from 0.25 to 10% by weight, based on dry polymer weight, monoethylenically unsaturated acid monomer, said polymer having a T<sub>g</sub> of -10 °C to 35 °C wherein said emulsion polymer is formed by emulsion polymerization at a temperature of from 70 °C to 99 °C in the presence of a thermal initiator, wherein said initiator is used in the amount of 0.05 to 0.3%, by weight, based on dry polymer weight, and wherein less than half of said initiator is present during the first 10%, by weight, based on dry polymer weight, of the conversion of monomers to said emulsion polymer, and a neutralizer, wherein said neutralizer is used in the amount of from 5% to 75%, on an equivalents basis, based on said monoethylenically unsaturated acid monomer, and wherein less than half of said neutralizer is present during the first 25%, by weight, based on dry polymer weight, of the conversion of monomers to said emulsion polymer.
3. (original) The aqueous coating composition of claim 1 or claim 2 wherein said aqueous acrylic emulsion polymer comprises, as

copolymerized units based on dry polymer weight, from 50% to 99.65% by weight monoethylenically unsaturated nonionic (meth)acrylic monomer, from 0.1% to 12.5% by weight aldehyde reactive group-containing monomer, and from 0.25% to 10% by weight monoethylenically unsaturated acid monomer.

4. (original) The aqueous coating composition of claim 1 or claim 2 further comprising from 2% to 40% by weight, based on the total dry polymer weight, of a second emulsion polymer that has a T<sub>g</sub> of from 25 °C to 150 °C, wherein the T<sub>g</sub> of said second polymer is at least 10 °C higher than the T<sub>g</sub> of said aqueous acrylic emulsion polymer.
5. (original) The aqueous coating composition of claim 1 or claim 2 having a PVC of 15 to 38 and having VOC less than 5% by weight based on the total weight of the coating composition.
6. (original) The aqueous coating composition of claim 1 or claim 2 having a PVC greater than 38 and having VOC less than 3% by weight based on the total weight of the coating composition.
7. (original) The aqueous coating composition of claim 1 or claim 2 having a PVC of 15 to 85 and having VOC less than 1.7% by weight based on the total weight of the coating composition.
8. (cancelled)
9. (cancelled)
10. (new) A process for forming an aqueous acrylic emulsion polymer, said polymer having a glass transition temperature (T<sub>g</sub>) of -10 °C to 35 °C,

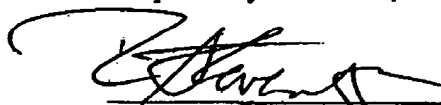
wherein said emulsion polymer is formed by emulsion polymerization of monomers comprising from 50 to 99.75% by weight, based on dry polymer weight, monoethylenically unsaturated nonionic (meth)acrylic monomer and from 0.25 to 10% by weight, based on dry polymer weight, monoethylenically unsaturated acid monomer, at a temperature of from 70 °C to 99 °C in the presence of a thermal initiator, wherein said initiator is used in the amount of 0.3% to 0.4%, by weight, based on dry polymer weight, and wherein less than 0.15% by weight, based on dry polymer weight, of said initiator is present during the first 10%, by weight, based on dry polymer weight, of the conversion of monomers to said emulsion polymer; 0.001 to 0.05 moles of chain transfer agent/kg monomer; and a neutralizer, wherein said neutralizer is used in the amount of from 5% to 75%, on an equivalents basis, based on said monoethylenically unsaturated acid monomer, and wherein less than half of said neutralizer is present during the first 25%, by weight, based on dry polymer weight, of the conversion of monomers to said emulsion polymer.

11. (new) A process for forming an aqueous acrylic emulsion polymer, said polymer having a glass transition temperature (T<sub>g</sub>) of -10 °C to 35 °C, wherein said emulsion polymer is formed by emulsion polymerization of monomers comprising from 50 to 99.75% by weight, based on dry polymer weight, monoethylenically unsaturated nonionic (meth)acrylic monomer and from 0.25 to 10% by weight, based on dry polymer weight, monoethylenically unsaturated acid monomer, at a temperature of from 70 °C to 99 °C in the presence of a thermal initiator, wherein said initiator is used in the amount of 0.05 to 0.3%, by weight, based on dry polymer weight, and wherein less than half of said initiator is present during the first 10%, by weight, based on dry polymer weight, of the conversion of monomers to said emulsion

polymer, and a neutralizer, wherein said neutralizer is used in the amount of from 5% to 75%, on an equivalents basis, based on said monoethylenically unsaturated acid monomer, and wherein less than half of said neutralizer is present during the first 25%, by weight, based on dry polymer weight, of the conversion of monomers to said emulsion polymer.

12. (new) A process according to claim 9 wherein the polymer is formed in the presence of 0.001 to 0.05 moles of chain transfer agent/kg monomer.
13. (new) A process according to claim 9 wherein the polymer is formed in the presence of 0.0025 to 0.05 moles of chain transfer agent/kg monomer.
14. (new) A process according to claim 10 or 11 wherein the monomers comprise of from 50% to 99.65% by weight monoethylenically unsaturated nonionic (meth)acrylic monomer, from 0.1% to 12.5% by weight aldehyde reactive group-containing monomer, and from 0.25% to 10% by weight monoethylenically unsaturated acid monomer.

Respectfully submitted,



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